

## THE JOURNAL OF THE EXPERIMENTAL ANALYSIS OF BEHAVIOR AT FIFTY

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The *Journal of the Experimental Analysis of Behavior* was founded in 1958 by a group of male psychologists, mainly from the northeastern USA and connected with either Harvard or Columbia. Fifty years later about 20% of both editors and authors reside outside this country and almost the same proportion is made up of women. Other changes in the journal include having its own website for more than a decade and now publishing online as well as on paper. A recent connection with PubMed Central of the National Library of Medicine has made possible the completely free electronic presentation of the entire archive of about 3,800 articles.

*Key words:* behavior analysis history, women as journal editors, geographical distribution of editors, online publishing, B.F. Skinner

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I have lived my professional life by decades. It was 60 years ago, in 1928, that I arrived at Harvard as a graduate student in psychology. Behaviorism was then only 15 years old. Ten years later, in 1938, I published *The Behavior of Organisms* and 10 years after that, in 1948, *Walden Two*. Things were then taken out of my hands, but still by decades. Nineteen fifty eight saw the first issue of *The Journal of the Experimental Analysis of Behavior*, the title reminiscent of the subtitle of *The Behavior of Organisms*, and ten years later the behavioral engineering of *Walden Two* moved from fiction to real life in the first issue of the *Journal of Applied Behavior Analysis*. Of all the anniversaries one is likely to celebrate in a lifetime the 50<sup>th</sup> is the golden one, and that is why this chapter is about *The Behavior of Organisms* and how it looks to me after half a century. (B. F. Skinner, 1989, p. 121)

Twenty years after Skinner wrote those words in 1988, *JEAB*'s golden anniversary is being celebrated by the six essays in this section. This essay touches on only a few aspects of the journal's history: its founding and its editors, the geographical distribution of editorial board members, the increase in women involved in editing the journal, the start of a second journal to deal with applied behavior analysis, the development of a website, the increase in electronic publishing, and the consequent move to a relationship with

PubMed Central of the National Library of Medicine so that all of our articles now are also served by them.

THE BEGINNINGS OF *JEAB*

This journal was mainly the brain child of Charles B. Ferster, a 1950 Columbia Ph.D. who spent five fruitful years with B. F. Skinner at Harvard exploring the domain of reinforcement schedules in highly original ways (Ferster & Skinner, 1957). Experimental psychologists who studied learning and motivation then had two major outlets for their work: the *Journal of Experimental Psychology (JEP)* and the *Journal of Comparative and Physiological Psychology (JCPP)*, both published by the American Psychological Association (APA). Ferster did not appreciate harsh criticism of his work by their editors, who usually had neither knowledge of nor sympathy for studies of operant conditioning. Years later, Richard Herrnstein captured Ferster's suffering in this account:

At some point, I remember Ferster storming into the office I shared with Morse, Blough, Anliker, and Azrin, waving a rejection letter from the *Journal of Comparative and Physiological Psychology*, probably from Harry Harlow, its editor. *JCPP* wanted statistical tests, but, said Charlie, the behavior under the various experimental conditions did not even overlap, or words to that effect. This indignation over, first, the demand for pointless inferential statistics and, second, the heavy-handedness of a journal editor was, from my vantage point, the seed that grew into *JEAB*.

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At the time Ferster waived his letter, I may or may not have heard about the mimeographed proceedings of Conferences on the Experimental Analysis of Behavior, mentioned by other reminiscencers. I certainly heard of CEAB at some point in the founding of *JEAB*, but it seemed to me that Ferster meant business in a way that the earlier organizers did not. Ferster was going to start a real *journal*, on the model of the APA experimental journals, minus their flaws; perhaps indignation is a better motive for starting a journal than camaraderie. (Herrnstein, 1987, pp. 449-450)

Others in this new field readily agreed with Ferster that there should be a new journal, one that would be more receptive to their papers (e.g., Kelleher & Morse, 1987). After much talk and correspondence, a small group gathered on April 12, 1957 in a bedroom of the Statler Hotel in New York during the annual meeting of the Eastern Psychological Association (EPA) and decided to found a new journal. Soon "A Plan for Establishing a New Journal," put together by Ferster, Peter B. Dews, W. N. (Nat) Schoenfeld, and Murray Sidman, was circulated. It contained the name of the journal, the names of the first editorial board members, and a suggested editorial policy.

In early August a call for papers went out to the board, asking the members to solicit submissions from their friends. Ferster himself, who was moving from the Yerkes Laboratories in Orange Park, Florida to a new position at the Indiana University Medical School in Indianapolis during this busy summer of 1957, spent much time trying to solve the basic problem of getting submitted manuscripts set into type. (A more detailed account of these events is in Laties, 1987b. Reminiscences by many of the participants are in Himeline & Laties, 1987.)

Charlie's wife, Marilyn Ferster (now Gilbert) was pressed into service as the compositor of the first two issues. Her account of this adventure shows how some primitive methods were effective enough to launch the journal.

We were also picking up great support. John Nurnburger, Director of the Institute [of Psychiatric Research], loaned us a used IBM Selectric typewriter. (The Executive model was the one that allowed you to manually justify the

right-hand margins—some say this is where desktop publishing began.)....

....One early decision we made about *JEAB* was to justify margins to simulate hot type; "ragged right" was widely disdained because it screamed "typewriter-composed." Using the Executive typewriter's capability meant an extra typing to count units and determine how to get even lines. Every night I gave thanks to Snow-Pake, the first—and I think the best—of white-outs. (Gilbert, 1987, pp. 476-477)

Because almost all those involved in starting the journal had at least a passing interest in what was soon to be called behavioral pharmacology (Laties, 2003), most seed money for the new journal was donated by nine pharmaceutical firms, all of them employing or consulting with those knowledgeable about operant conditioning.

It was Nat Schoenfeld (1987) who took the lead in deciding many of the big and little decisions that had to be made quickly for the venture to succeed. He was in the best position to do so, partly because his wife, Serena, worked for a publisher. He, for instance, designed the green and grey cover, influenced by the color scheme of the *Proceedings of the National Academy of Sciences*. He also was responsible for the statement on the inside front cover that the journal was "primarily for the original publication of experiments relevant to the behavior of individual organisms."

Most important, he made the crucial decision that the new journal should serve as its own publisher, hiring a printer, worrying about how to attract subscribers and advertisers, dealing with the post office concerning mailing regulations, and so on. It still does. After someone pointed out that the new journal had to have a formal corporate parent to serve as publisher, three of the founding members in the Washington, DC area, Herrnstein, Joseph V. Brady, and Donald S. Blough, engaged a lawyer and incorporated the Society for the Experimental Analysis of Behavior (SEAB) on October 29, 1957.

On April 11, 1958, again during an EPA meeting, the now formally organized Board of Directors of SEAB met in a room of the Bellevue-Stratford Hotel, Philadelphia. Ferster held up a copy of the first issue of *JEAB*, saying "The Journal speaks for itself." However, he

was holding the just-published January issue. Subsequent issues continued to be late for the first several years, partly due to trouble finding suitable papers and partly due to production difficulties. It was 1962, during John Boren's term as editor, before the journal began to appear on time.

Gaining subscribers had not been a problem. The year 1958 ended with 385 subscribers, including 148 institutions. The total passed 1,000 in 1962, 2,000 in 1966, 3,000 in 1968, and peaked in 1973 at 4,092, including 1,578 institutions. From then it was a steady slide down to the 1,657 (812 institutions) of 2006, the product of diminished library funds for journals, lessening federal support for academic research, and perhaps increased competition from other journals.

Two important behavioral journals appeared in the mid-1970s. A group of experimental psychologists, dissatisfied with APA's performance in meeting the needs of its scientific members, founded the Psychonomic Society in late 1959 (Dewsbury & Bolles, 1995). In 1973, it founded *Animal Learning & Behavior* (*AL&B*). The name was shortened to *Learning & Behavior* (*L&B*) in 2003, thereby broadening its scope. The APA's venerable *Journal of Experimental Psychology*, born in 1916 and the traditional publication outlet for those studying learning, was divided into four separate publications in 1975. One of them was the *Journal of Experimental Behavior: Animal Behavior Processes* (*JEP:ABP*).

These three journals resemble each other in many ways, and it is important to authors that they all remain healthy. Their printed versions have all experienced severe circulation decreases. From 1975 to 2006, *JEAB* subscriptions went from 3,736 to 1,657, and *AL&B*, from 1,457 to 784 (as *L&B*). *JEP:ABP* had 3,907 paid subscribers in 1975 but only 844 in 2006. Indeed, subscriptions to all APA journals have decreased, most likely because the society has been licensing PsycArticles, a package offering online access to all their journals and many libraries have then been dropping their subscriptions to the paper journals.

*JEAB* also resembles *JEP:ABP* and *L&B* in editorial practices, board membership and content, but has remained unique in its emphasis on studies "relevant to the behavior of individual organisms." Throughout their lives, the three journals have drawn upon the

same general pool of authors and editors. For example, Don Blough, one of *JEAB*'s founders, was the second Editor of *JEP:ABP*. Currently, about 40% of the editorial board members of each of those other two have also served on the *JEAB* board. In a striking demonstration of these interrelationships, two members of the 2007 *JEP:ABP* editorial board just began terms editing the other two journals. Geoffrey Hall is now editor of *L&B*. James Mazur is the new editor of *JEAB*—after completing a term as associate editor of *L&B*.

### THE JOURNAL OF APPLIED BEHAVIOR ANALYSIS (JABA)

Starting a second journal, one devoted to applications, reflected the rapid growth of the applied area. A decade after *JEAB* was started, some of those involved with the journal had moved into work with humans. Skinner himself was deeply involved in programmed learning and the technology of teaching. Other psychologists using the behavior analytic approach in applied research were having trouble with unsympathetic journal editors, a situation reminiscent of the state of affairs that led to *JEAB*'s own birth.

On September 3, 1967, the SEAB meeting was dominated by discussion of a possible second journal, one to be devoted to what Skinner had thought of as "behavioral engineering." Nathan H. Azrin, who had just completed a term as editor of *JEAB* but was already heavily involved in the applied area, had been commissioned to survey the possibilities—following a discussion initiated by Skinner—and now recommended that such a journal be started. The recommendation was adopted, and Montrose M. Wolf of the University of Kansas was named editor of what he then named the *Journal of Applied Behavior Analysis*. (More detailed accounts of these events appear in Laties, 1987b, and Wolf, 1993.)

The new journal was an instant success with a paid circulation of 4,271, including 761 institutions, at the end of its first year and almost 5,500 after only two years (cf. Laties & Mace, 1993). The peak was reached in 1975, when it had 7,097 subscribers (2,058 institutions). Its circulation in 2006 was 3,304

Table 1  
*JEAB* Editors 1958–2008.

Name and Term	School and Degree Date	Affiliation when Editor
Charles B. Ferster (1958–60)	Columbia '50	Indiana University
John J. Boren (1961–63)	Columbia '54	Institute for Behavioral Research, MD
Nathan H. Azrin (1964–66)	Harvard '55	Anna State Hospital, IL
A. Charles Catania (1967–69)	Harvard '61	New York University
Stanley S. Pliskoff (1970–72)	New York U. '56	University of Maine
Victor G. Laties (1973–76)	U. of Rochester '54	University of Rochester
Michael D. Zeiler (1977–79)	New School '62	Emory University
John A. Nevin (1980–83)	Columbia '63	University of New Hampshire
Philip N. Himeline (1984–87)	Harvard '67	Temple University
Edmund Fantino (1988–91)	Harvard '64	U. of California-San Diego
Marc N. Branch (1992–95)	U. of Maryland '72	University of Florida
Richard L. Shull (1996–99)	Arizona State U. '69	U. of North Carolina-Greensboro
Kennon A. Lattal (2000–03)	U. of Alabama '69	West Virginia University
Leonard Green (2004–07)	Stony Brook '74	Washington University
James E. Mazur (2008–)	Harvard '77	Southern Connecticut State U.

(1,388 institutions), the drop being partly a function of the proliferation of journals in the applied behavioral research field. Wyatt, Hawkins, and Davis (1986) list a dozen that were founded in the 18 years following *JABA*'s appearance.

The relationship between *JEAB* and *JABA* has remained both strong and warm over the years, probably because of the breadth of interests displayed by workers in behavior analysis. For example, the 15 *JEAB* editors have varied widely in their backgrounds and interests. Branch (2006) and Laties (2003) have spent their professional lives closely identified with behavioral pharmacology. Fantino (Navarro & Fantino, 2005) and Green (Green & Freed, 1993) are close to behavioral economics. Nevin (Nevin & Mace, 1994), Shull (Shull & Fuqua, 1993), and Mazur (Fisher & Mazur, 1997) have published articles in *JABA* that showed how basic findings from *JEAB* bear upon the problems discussed in the other journal.

Phrases taken from article titles show that other *JEAB* editors have more explicit connections with research in applied behavior analysis: Ferster has published on “performances in autistic children” (Ferster & DeMeyer, 1961); Boren on “experiments on reinforcement principles with a psychiatric ward for delinquent soldiers” (Boren & Colman, 1970); Azrin on “a rapid method of toilet training the retarded” (Azrin & Foxx, 1971); Catania on “lump detection in simulated human breasts” (Adams et al., 1976); Pliskoff on “inferential behavior in children”

(Kendler, Kendler, Pliskoff, & D’Amato, 1958); Zeiler on “choices and preferences of nursery school children” (Betancourt & Zeiler, 1971); Himeline on “ethanol consumption and the matching law” (Martinetti, Andrzejewski, Himeline, & Lewis, 2000); and Lattal on “contingency management of tooth brushing in a summer camp for children” (Lattal, 1969).

Over the years *JABA* has consistently performed well financially. *JEAB* could have continued without the second journal, but *JABA*'s presence broadened the income base. Although *SEAB* is a nonprofit organization, it must still match expenses with suitably robust income.

THE *JEAB* EDITORS

The first three editors of *JEAB* were called executive editors—so named by Ferster to emphasize his wish for benign treatment of prospective authors. The first four, Ferster, Boren, Azrin, and Catania, all had Columbia or Harvard backgrounds. Stan Pliskoff was the first to come from another school. Table 1 shows the fifteen who have served as editors during the half century.

As the journal grew in both size and complexity over the years, the editorial burden was shared with others. In 1963, Boren appointed the first associate editors (Table 2) to deal with the increase in manuscript submissions. By coincidence, exactly 50 have served in this capacity since then.

Table 2  
*JEAB* Associate Editors 1963–2008

Names and terms	
Roger T. Kelleher 1963-66	Dianne McCarthy 1987-90
J. M. Harrison 1963-66	Stephen R. Hursh 1988-91
William H. Morse 1966-69	Douglas J. Navarick 1988-91
William C. Holz 1967-69	Gregory Galbicka 1989-91
Stanley S. Pliskoff 1967-69; 1976	K. Geoffrey White 1990-93
Herbert S. Terrace 1967-69	Daniel J. Bernstein 1991-93
John A. Nevin 1969-70; 1973-76	Michael Perone 1991-94
Larry D. Byrd 1970-76	David A. Eckerman 1992-94
Howard Rachlin 1970-72	Carol Pilgrim 1994-97
Lewis R. Gollub 1970-73	John T. Wixted 1994-96
Michael D. Zeiler 1970-76	Nancy A. Ator 1995-96
Herbert M. Jenkins 1971	James E. Mazur 1995-97
Edmund Fantino 1972-74; 1981-83	William M. Baum 1997-2005
Donald F. Hake 1973-76	Kathryn J. Saunders 1997-99
Alan Baron 1977-79	Leonard Green 1998-2001
Patricia M. Blough 1977-79	Timothy D. Hackenberg 1998-2000
M. Jackson Marr 1977-79	Mark Galizio 1999-2002
Charles P. Shimp 1977-79	Thomas S. Critchfield 2001-03
Philip N. Hinline 1980-82	Michael Davison 2001-04
Evalyn F. Segal 1980-83	Gregory J. Madden 2003-
John E. R. Staddon 1980-83	Harold A. Miller 2004-07
Kennon A. Lattal 1983-86	Michael J. Dougher 2005-07
Stephen E. G. Lea 1983-85	Douglas M. Elliffe 2006-
Peter Harzem 1984-87	Brent Alsop 2008-
Richard L. Shull 1985-88	Amy L. Odum 2008-

Quite appropriately, given the primitive equipment available to operant conditioners half a century ago, an Apparatus editor, Doug Anger, was immediately appointed in 1958 (Table 3). The first issues of the journal contained many notes on cumulative recorder inks, pulse shapers, shock grids, tension gauges, session timers, and levers. Soon, half a dozen companies were formed to supply the rapidly growing field's needs. By 1967, the editorial category—renamed Technical Notes editor after 1963—had disappeared.

In 1966, when Charlie Catania was chosen to edit *JEAB*, he asked me to serve with him, caring for the business and financial aspects of the job (Catania, 1987; Laties, 1987a). He thus became the first editor to be called “editor” whereas I became the “executive editor.” When Catania was succeeded by Stan Pliskoff, I continued as the executive editor. The SEAB minutes for March 28, 1967 contain this explanation, from Catania's first report as *JEAB* editor:

The Journal was formerly organized under the direction of a single (Executive) Editor, who was responsible for Journal content, matters of policy, and the supervision of Journal business

and finance. These responsibilities have now been divided: the Editor is primarily for Journal content and, with the advice and consultation of the Executive Committee and the Executive Editor, policy decisions; the Executive Editor supervises Journal business and finance.

Catania became the first Review editor in 1970 and about 100 book reviews have since appeared in *JEAB*. Drug-behavior articles appeared from the very first issues but represented less than about 5% of the total until the late 1970s. Lewis Gollub was appointed the first editor for Behavioral Pharmacology in 1982 to care for such submissions. A steady stream of drug studies continues to appear, and a search of the abstracts database at our website now brings up over 230 items. As was noted above, the role of behavior analysis in pharmacological research has been large from the beginning (Laties, 2003). The Behavioral Pharmacology Society (BPS) was founded on April 10, 1957, a day before the meeting that gave birth to *JEAB*, with many of the same names appearing among its founders. John Boren, the second editor of *JEAB*, was one of the two men who organized



Table 3  
Other *JEAB* Editors

Apparatus Editor
Douglas Anger 1958–63
Technical Notes Editor
T. Verhave 1964
W. C. Holz 1965–66
Executive Editor
Victor G. Laties 1967–
Review Editors
A. Charles Catania 1970–76
Victor G. Laties 1982–83
A. Charles Catania 1984–91
Philip N. Himeline 1992–98
M. Jackson Marr 1999–
Editors for Behavioral Pharmacology
Lewis R. Gollub 1982–83
Marc N. Branch 1984–88
James E. Barrett 1989–91
William H. Morse 1992– 96
Nancy A. Ator 1996–99
Stephen T. Higgins 2000–03
Jonathan L. Katz 2004–
Editor for Behavioral Neuroscience
David W. Schaal 2006–
Managing Editors
H. Garth Hopkins 1962–78
Andree F. Coers 1979–81
Robin Smith 1981–82
Kay Dinsmoor 1982–87
Kathy Hill 1988–2002
Ann Davis 2003–05
Sharon Corcoran 2006–

BPS—at first called the Drug-Behavior group. The editor for Behavioral Neuroscience post was created in 2006 following the publication of the November 2005 special issue on *The Relation of Behavior and Neuroscience*, with David Schaal as the first to hold the position.

The managing editors are responsible for preparing accepted manuscripts for publication, serving as copy editors and querying authors if questions arise, overseeing the proofing stage and delivering the final issue to the printer.

The Business Managers for *JEAB* are shown in Table 4. Og Lindsley, a student of Skinner’s, played an important part as one of those among the journal’s founders. He was the Treasurer and also served as Business Manager until December 1959, when Kay Dinsmoor succeeded him. Kay, a person of boundless energy and intelligence, became the backbone

Table 4  
*JEAB* Business Managers

Ogden R. Lindsley 1957–1959
Kay Dinsmoor 1959–1991
Devonia Stein 1992–2007
Lauren Bryant 2007–

of *JEAB*, holding a variety of positions, first as Business Manager for 32 years. In the early 1980s she was concurrently the managing editor for five years. After retiring in 1991, she remains active, now as the Assistant Treasurer of the Society. Her hand-picked successor, Devonia Stein, took over as Business Manager in 1992, also doing a superb job and retiring in 2007 after a respectable length of service. Again, the successor to Devonia, Lauren Bryant, was hand-picked by her predecessor.

*JEAB* started as a quarterly and averaged about 350 to 400 text pages until it jumped to over 600 pages and moved to bimonthly publication in 1963. Our editors have always been able to choose what to publish, never being given page allotments by anyone. Between 1962 and 1981, five monographs were included in the journal, all but one as supplements, and were also sold separately for classroom use. Beginning in 1984, editors have included special sections within an issue and have even occasionally devoted an entire issue to a particular subject. So far there have appeared 16 such sections and 10 special issues. The latest special issues were the 387-page November 2005 issue, *Relation of Behavior and Neuroscience* and the 370-page November 2002 issue, *Categorization and Concept Learning*.

NON-USA MEMBERS OF THE BOARD  
OF EDITORS

Behavior analysis abroad has grown rapidly over the past half century, mainly due to the efforts of the Association for Behavior Analysis. Its website now lists 31 active chapters in foreign countries (<http://www.abainternational.org/Chapters/nonUSchapters.asp>). *JEAB* has been positively affected by that growth and now draws upon that pool of talent for both editorial expertise and authors.

Figure 1 shows how those from other countries have participated in editing the

	1968 67	1968 68	1970 69	1975 74	1980 79	1985 84	1990 89	1995 94	2000 99	2005 04	2008 07
<b>CANADA</b> Herbert M. Jenkins Richard M. Gilbert Ronald G. Weisman W. K. Honig Vincent M. LoLordo John R. Platt Stephen B. Kendall Bruce A. Schneider Donald M. Wilkie Nancy K. Innis J. D. Keehn Sara J. Shettleworth Paula J. Durlach Ron Van Houten Terry W. Belke											
<b>UK</b> Jock R. Millenson Derek E. Blackman C. Fergus Lowe Stephen E. Lea Christopher M. Bradshaw Alasdair Houston Phil Reed Pauline J. Horne John H. Wearden											
<b>NEW ZEALAND</b> Michael Davison Dianne McCarthy K. Geoffrey White Anthony P. McLean Brent Alsop Randolph C. Grace T. Mary Foster Douglas M. Elliffe William Temple David N. Harper											
<b>MEXICO</b> Arturo Bouzas Carlos A. Bruner Carlos F. Aparicio Francois Tonneau											
<b>AUSTRALIA</b> Vicki Lee Robert A. Boakes E. James Kehoe											
<b>BRAZIL</b> Joao Todorov <b>JAPAN</b> Masato Ito <b>IRELAND</b> D. Holmes-Barnes <b>PORTUGAL</b> Armando Machado											
<div>E: Board Member A: Associate Editor</div>											

Fig. 1. Non-USA Members of the *JEAB* Board of Editors (1958—2008).

journal over the years. The first to join the editorial board were from Canada, Herbert Jenkins, in 1968, and Richard Gilbert in 1971. The most vigorous participation recently has been from the psychologists of New Zealand, which so far has contributed five associate

editors. The 2008 board lists 10 nonUSA editors out of 50. The 2005 and 2006 journal issues were examined to see where our authors now come from. Thirty-six of the 106 articles appearing during these two years—34%—had at least one foreign author. If one gives

a country credit every time it has one or more authors on a paper, New Zealand leads the pack with 16. Next come the UK (8), Mexico (5), Ireland (4), Japan and Belgium (3), Brazil (2), and Canada, Spain, Germany, and Myanmar with one each.

### WOMEN AS AUTHORS AND EDITORS

There were no women among the small group that founded this journal in 1958 (Figure 2). At the time, there were few female faculty members or graduate students interested in experimental psychology and fewer still working in behavior analysis. It is not surprising that women were not named to the editorial board until they started to publish in the new journal.

No woman was on the editorial board until Barbara Ray was appointed in 1970. Evalyn Segal was named to the board in 1972 and Patricia Blough in 1973. Both became associate editors soon after finishing three-year board terms. They each served for about a dozen years. During these years there usually were 4 or 5 women on the board among 35 to 40 men—these numbers always including the editor and the associate editors.

Only five other women have been associate editors. Dianne McCarthy became one in 1987. Nancy Ator served in that capacity for two years starting in 1994 and then was named the editor for Behavioral Pharmacology. Carol Pilgrim and Kate Saunders were associate editors in the mid-nineties. In 2008, Amy Odum became the latest female associate editor. The total number of women on the board has gradually increased since 1970, drifting from about four or five in the late seventies to eight or nine more recently. However, total board membership has itself moved from the 40 or so of the seventies and eighties up to about 50. And board membership roughly parallels publication in the journal, as can be seen in the insert in Figure 2.

### THE WEBSITE AND ELECTRONIC PUBLISHING

The development of the World Wide Web has changed the nature of journal publishing. Our website, which was launched in October

1994, was originally meant to be no more than an interesting way to tell the world about the history of our journals, their editors, the rules for manuscript submission, the prices of the *JABA* reprint volumes, subscription rates, and so forth. However, a graduate student, with our permission, produced a commercial product that included all of our abstracts, which he had laboriously scanned and compiled into a searchable database. He allowed us to add his database to our site. Suddenly, the website boasted a useful feature that attracted much activity, particularly among students. Traffic increased dramatically.

The way we thrashed about initially is captured in this May 5, 1995 e-mail to Michael Perone, who had been an associate editor and then was serving as President of SEAB. Mike had written concerning the recent announcement by Joseph Plaud of the founding of the *Electronic Journal of Behavior Analysis and Therapy*. How would such an “electronic journal” affect our journals? My reply dodged his question because I did not know the answer, but it outlined how far we had come in exploring the possible ways in which we could supplement the value of the journals through use of the internet:

I have thought a great deal about this topic, partly because I have been surrounded by people who were closely watching the development of the World Wide Web....As you already know, we at Rochester have been exploring the possibilities afforded us by the Web over the last few months. (The ‘we’ refers to Geoff Inglis, our systems manager, Ray Preston, working for Bernie Weiss on a grant at the time, Randy Pittelli, an undergraduate EE student, and me.)

Because Geoff created a home page for my department and manages the server, it was easy to add a page for SEAB. Because he had just created a search program for a NASA database that Bernie was interested in it, it was more feasible to produce a truly elegant one for JEAB and JABA....

Because I had much history stuff already in electronic form (Hineline & Laties, 1987; Laties & Mace, 1993), that material now reappears in smaller pieces as part of what interested persons using appropriate tools can choose to inspect if seized with the desire to explore the past and current status of our journals. They can read about the founding of JEAB and JABA. They can find out who were



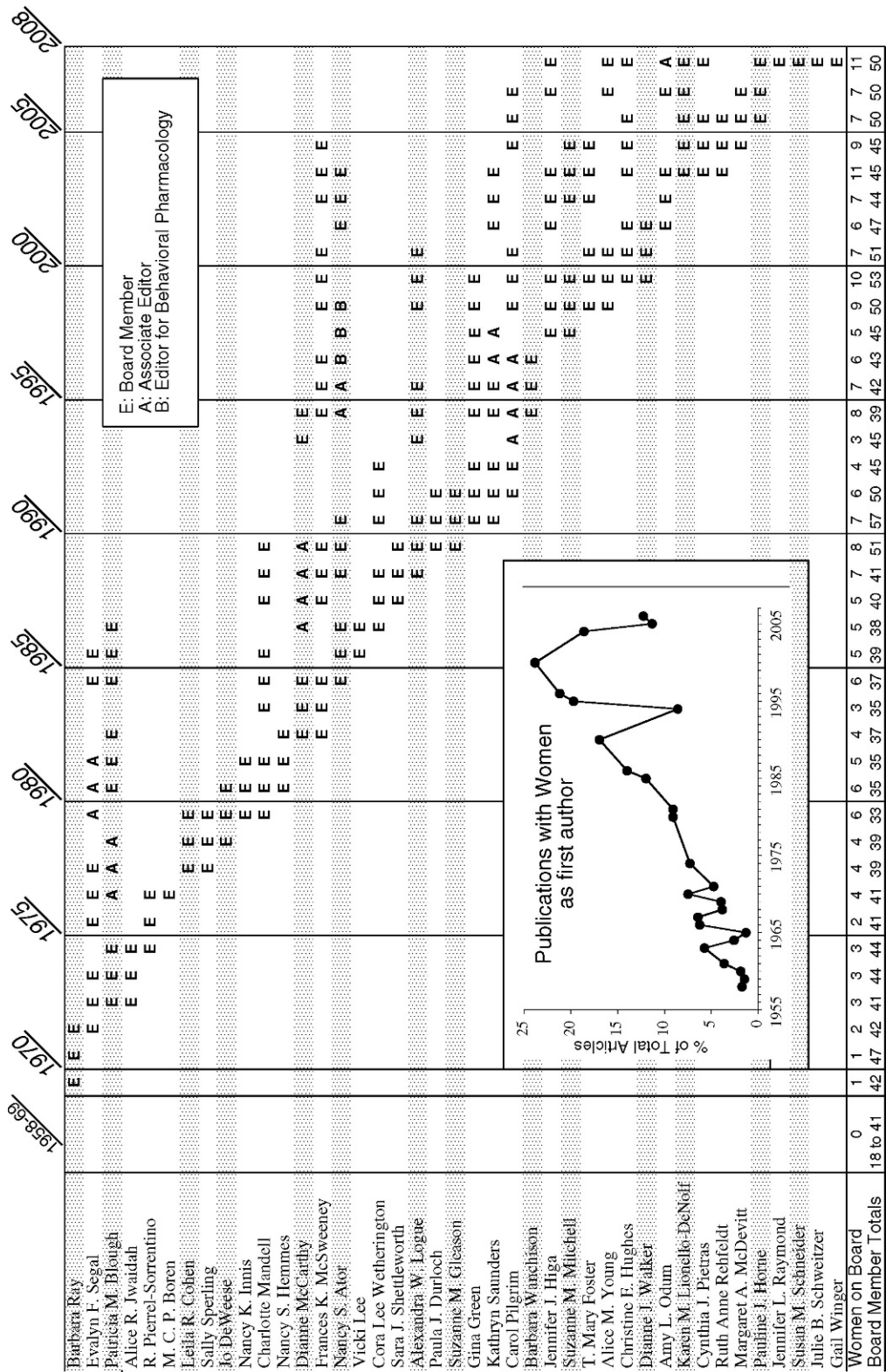


Fig. 2. Women as Editors and Authors in JEAB (1958–2008).

the members of the first board of editors of JEAB—and even inspect their photographs (the ones Charlie Ferster took in the hotel room where the journal was founded). They can examine a long list of references relevant to journal history. They can learn of the relative standing of the journals among their competitors, in circulation, citations, etc. We also now list all the JABA monographs, tell the world about the new JEAB cumulative index, give the current board members of SEAB, and on and on.

We also added pages giving the tables of content of the November, 1994 issue of JEAB and the Winter issue of JABA when they were published. Because we had already entered the journal abstracts to the database (all of JEAB's, only one year of JABA's), we could link the titles to the abstracts so that anyone examining these contents pages could simply click on a title to bring up the associated abstract. When the January issue of JEAB arrived, it replaced November as the "current issue" and we now have two JEAB issues, each article linked to its abstract.

Last week I finished the task of converting one article from the January JEAB into a form suitable for electronic presentation, broken into sections that are more easily digested by computers (Introduction, Method, etc.). The honor of being the first electronic JEAB paper belongs to Baron and Leinenweber (1995, 63, 97–110), chosen because it was short, contained only one small table, and treated a topic of great interest to me....If you can get to a suitable machine, check it out. There is a link to it from the JEAB home page and in several other locations. This paper illustrates some of the virtues of electronic publishing. For example, links have been created between most of JEAB papers in the reference list to their abstracts in the searchable database.

A few weeks after this letter, when the SEAB board met on May 27, 1995, it voted to present one complete paper from each issue in electronic form. Progress was slow but one year later, in May 1996, we had seven articles from JEAB and five from JABA on the site and were adding one or two articles regularly from each issue. The Adobe Portable Document Format (PDF) was used for most of the articles, because it presented the original text fonts, graphics and layout. In the November issues of both journals an editorial appeared, formally announcing the existence of the

Table 5

Origins of Visitors to JEAB Website (one year ending 24 Sept 2007).

Country	Visitors	% of total visitors
United States	69,557	56.75
United Kingdom	5,985	4.88
Mexico	4,371	3.57
Brazil	3,823	3.12
Canada	3,730	3.04
Japan	3,677	3.00
Uruguay	3,018	2.46
New Zealand	2,715	2.22
Australia	2,006	1.64
Germany	1,567	1.28
China	1,369	1.12
France	1,215	0.99
Ireland	1,090	0.89
Spain	1,027	0.84

web pages (Laties, Preston, Inglis & Pittelli, 1996).

Searching the abstracts continued to increase in popularity. Traffic for the 36 days starting April 1, 1997 showed 2,110 visits to the JEAB search page, 59 visits, on average, per day. Ten years later, in 2007, the search engine continued to stand second only to the home page in number of visitors. After the search engine, the most popular pages include the most recent table of contents and the long page of "Selected Articles" chosen by the editor from each issue—usually the first one or two papers plus a book review or special article, if available. (Access to the web statistics is freely available on the journal's home page.)

The site continues to serve our authors by displaying the journal content in a way that most likely increases readership. Traffic reflects the academic year, with between 100 and 600 visitors per day to the JEAB homepage, the lowest figures marking the popular vacation times.

We can discover where our visitors come from and how often they visit, which features of the site are most popular, and even the particular journal articles they examine. Table 5 is a report, taken from our own web server, showing where the users live and how often they came to the JEAB pages during the 365-day period ending September 24, 2007. Note that this activity does not always match the editorial involvement data of the foreign editors; on this measure, for this period, Uruguay ranks above New Zealand!

## PUBMED CENTRAL: GOING COMPLETELY ELECTRONIC

The SEAB Board minutes for 2000 contain the following paragraph:

The Board reasserted an awareness that the Society will ultimately be forced to deal with the question of involvement in electronic publishing....One of the basic dilemmas is how to make the journals as accessible as possible to as many as possible, thus fulfilling its chief function, while at the same time remaining sufficiently solvent to continue to publish the journals in hard copy. No resolution followed this discussion.

However, our movement toward joining with a larger entity in an effort to make our journal more accessible in an electronic format was slow but steady. In 2001, a committee was formed "...to determine the cost of producing an electronic version of each journal for individuals who subscribe to the paper version." It consisted of Wayne Fisher, Andy Lattal, Dorothea Lerman, Brian Iwata, and Victor Laties. Although I reported in 2002 that all *JEAB* articles between July 1996 and November 1999 had been added to the website, there was no movement toward making the more current material available to subscribers.

In 2003, Leonard Green urged that we move more quickly toward going completely electronic. He then headed a committee to investigate the matter. The following year, in May 2004, he reported that "...the possibilities for implementing this included doing it in-house with our website (already in place) and Allen Press, Inc., the printer of the journals, or going with outside proposals." He had gathered some cost estimates from one outside company (about \$16,000 set-up costs plus a yearly charge of about \$13,000) and was awaiting the figures from another (which later gave us guesstimates of \$33,000 to \$46,000 setup costs and \$24,000 to \$46,000 yearly).

SEAB President David Wacker appointed a new committee (Green, Fisher, Thomas Critchfield, Timothy Vollmer, John Wixted, and Laties) and gave it the strong mandate "to consider all the options for electronic publishing, present those options to the entire Board via e-mail with their recommendations, and have the Board vote by August upon which the Society should follow."

While weighing the various alternatives, we came upon the program that moved us in a quite different direction. In 2000, the year we had first started down this road, the National Library of Medicine (NLM) had introduced a program that eventually provided the solution to our problems. The NLM is part of the National Institutes of Health and is the world's largest medical library. Its Medline database of abstracts is searched some 900 million times per year via PubMed. It had launched a program to deal with journals that were starting to produce electronic copies of their contents.

As they explain at their website, the NLM was:

...taking the lead in preserving and maintaining unrestricted access to the electronic literature, just as it has done for decades with the printed biomedical literature. PubMed Central aims to fill the role of a world class library in the digital age...NLM believes that giving all users free and unrestricted access to the material in PubMed Central (PMC) is the best way to ensure the durability and utility of the archive as technology changes over time (<http://www.pubmedcentral.nih.gov/about/intro.html>).

The SEAB committee studied the alternatives and then chose to cooperate with PMC, partly because of price—zero setup, zero yearly charges—but mainly because lodging the electronic version of the journal with the National Library of Medicine would ensure the journal's continuity. Our printer now sends a copy of each issue to PMC upon publication, conforming to their strict specifications. No action by anyone else is needed. It is totally independent of our website.

A further highly attractive feature of joining PMC was their offer to scan and digitize our back issues. We already had produced electronic versions of issues going back to 1996 but they captured for us PDF electronic versions of all the rest, going back to 1958 for *JEAB*—about 30,000 pages—making it possible to offer almost 3,800 articles to the public. Moreover, they used optical character recognition to produce text "...of sufficient quality to build indexes for full text searching." They did the same for *JABA* and its back issues—scanning about 16,000 pages. We now are

presenting to the world about 60,000 pages of text.

In sum, the contents of both journals are now made available from our own website (from 1996 on) as well as from PMC (all years). At our request, PMC imposes a six-month embargo on the newest material—three issues of *JEAB*, two issues of *JABA*—making them publicly available via the tables of contents pages only after that time. We similarly deny access on our website to the newest issues for six months to all but our own subscribers. However, by adding a few articles from each new issue (about 25 to 30% of the content) to the Selected Articles pages, we deliberately make that embargo somewhat leaky.

#### THE INFLUENCE OF PUBMED CENTRAL ON OUR WEBSITE

The sudden revivification of the older material has made it possible to present groups of these articles in ways that make their availability and usefulness more obvious. This is important because otherwise the potential user of the older material is faced at PubMed Central with a rather long and forbidding page of about 300 links to 50 years worth of *JEAB* tables of content. The database is searchable but there are some natural groups of articles that warrant better presentation. For example, the special issues or sections of issues, are now quite invisible to the younger audience, as are the almost one hundred book reviews that have appeared in *JEAB*.

New topical pages that feature titles with direct links to articles at PMC have now been created and are proving to be quite popular. A page displaying links to all ten of the special issues published by *JEAB* had just over 2,000 visitors over the past year. Pages with the titles of all the book reviews or with all the special sections in issues were both visited by about 1,200 people. A welcome byproduct of this effort has been the sudden appearance of some older articles from these pages among the most-often downloaded papers during the past year.

The PubMed Central connection also has permitted us to enhance the value of our own search pages. Searching the abstracts has always been the most popular exercise con-

ducted at our website. Until recently, only those abstracts with articles published after mid-1996 have carried links to the complete paper. Now all the 6,000-plus abstracts more than six months old carry links to the complete PDF versions at PubMed Central.

#### SEAB: THE PUBLISHER OF *JEAB*

The Society for the Experimental Analysis of Behavior's Certificate of Incorporation contains this statement of aims:

The purpose and objects of this corporation shall be to encourage, foster, and promote the advancement of the science of experimental analysis of behavior, the promotion of research in the said science and the increase and diffusion of knowledge of the said science by the conduct of a program of education, by meetings, conferences and symposia, and by the publication of journals, papers, periodicals and reports.

Over the past half-century, it has been true to its charter, its members engaging in innumerable "meetings, conferences and symposia." The Society also supported the publication of a half-dozen collections of articles, which have been useful to teachers of behavior analysis at every level.

Although listed last, journal publication quickly became the dominant theme of SEAB's activity. Over the years the journals have proved profitable enough for the Society to engage in its other educational endeavors, one being simple philanthropy, giving small amounts of money to support the programs of other groups. For example, SEAB supported the Experimental Analysis of Behaviour Group in England when it gave students travel grants to attend a conference on "Mechanisms of Learning and Motivation." Likewise, on occasion it contributed funds to the Association for Behavior Analysis, helping to sponsor symposia at their meetings.

The main recipient over the years has been Division 25 of APA where, starting in 1965, the Society has regularly subsidized the various awards programs with gifts now averaging about \$1,000 per year. Other recipients have included the Archives of the History of Psychology, ABA's *Analysis of Verbal Behavior*, the Midwest Association for Behavior Analysis (which became ABA), the Eastern Psychological Association, the *Mexican Journal of Experi-*



Name/graduate training	Year	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07
Catania, A. Charles -Harvard '61		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X				
Laties, Victor G. -Rochester 54		X	X	X	X	X		X	X	X	X	X	X	X	X			X	X	X	X
Gollub, Lewis R. -Harvard 58		P																			
Nevin, John A. -Columbia 63		X	X	X	X	X	X	X													
Fantino, Edmund -Harvard 64		X		X	X	X	X	X	X	X	X										
Stolz, Stephanie B. -Washington 63		X	X																		
Bailey, Jon S. -Kansas 70		X	X	X	X	X	X	X													
Hineline, Philip N. -Harvard 67			X	X	X	X	X	X	X	X					X	X	X	X	P	P	X
Iwata, Brian A. -Florida State 74				X	X	X	X	X	P	P	X			X	X	X	X	X	X	X	X
Schreibman, Laura E. -UCLA 72				X	P	P	X	X	X	X	X										
Koegel, Robert L. -UCLA 71		X																			
Shull, Richard L. -Arizona State 69									X	X	X	X	X	X	X	X					
Hayes, Steven C. -West Virginia 77		X																			
Lattal, K. Andy -Alabama 69		X							X	X	X	X	X	X	P	P					
Branch, Marc N. -Maryland 72		X	P	P		X	X	X	X	X	X	X	X								
Geller, E. Scott -Southern Illinois 69		X	X	X																	
Baum, William M. -Harvard 66											X	X	X	X	X	X	X	X			
Harzem, Peter -Wales 67		X	X	X	X																
Hursh, Steve R. -UC San Diego 72		X	X	X	X																
Reid, Dennis H. -Florida State 75		X	X	X	X	X															
Van Houten, Ronald -Dalhousie 72		X	X	X	X	X						X	X	X	X	X	X	X	X		
Mandell, Charlotte -Columbia 74		X	R																		
Neef, Nancy A. -Western Michigan 79		X	X	X	X	X	X		X	X	X	X	P	P	X	X					
Fuqua, R. Wayne -Florida 77		X	X	X	X	X	X														
Greene, Brandon -Florida State 79		X	X	X	X	X	X	X													
Navarick, Douglas -UC San Diego 73		X	X	X	X	X	X	X	X	X											
Baer, Donald M. -Chicago 57		X	X	X	X	X	X	X	X	X											
Barrett, James E. -Penn State 71		X	X	X	X	X	X	R													
Milchael, Jack. -UCLA 55		X	X	X	X	X	X	X	X												
Williams, Ben A. -Harvard 70		X	X	X	X	X	X	X	X												
Galbicka, Gregory -Florida 81		X	X	X	X	X	X	X	X												
Parrish, John M. -Virginia Com 79		X	X	X	X	X	X	X	X												
Wacker, David P. -Arizona SU 79		X	X	X	X	X	X	X	X				X	X	X	X	P	P	X	X	
Eckerman, David A. -Columbia 66				X	X	X	X	X	X	X	X	X									
Fowler, Susan A. -Kansas 79				X	X	X	X	X	X	X	X										
Bernstein, Daniel -UC San Diego 73					X	X	X	X	X	P	X		X								
Horner, Robert H. -Oregon 78					X	X	X	X	X	X	X		X								
Mace, F. Charles -Arizona 83					X	X	X	X	X	X	X		X	X		X	X	X	X	X	P
Perone, M. -Wisconsin-Milwaukee 81			X	X	X	P	P	X	X	X											
Cuvo, Anthony J. -Connecticut 73					X	X	X	X	X	X	X		X	X							
Wixted, John T. -Emory 87					X	X	X	X	X	X	X		X	X							
Pilgrim, Carol -Florida 87							X	X	X	X	X		X	X	X						
Ator, Nancy A. -Maryland 78								X	X	X	X	X	X	X	X						
Friman, Patrick C. -Kansas 84								X	X	X	X	X	X	X	X			X	X	X	X
Martens, Brian K. -Nebraska 85								X	X	X	X	X	X	X	X						
Fisher, Wayne W. -Texas Austin 82									X	X	X	X	X	X	X		X			X	X
Spradlin, Joseph E. -George Peabody 59									X	X	X	X	X	X	X						
Halle, James W. -Kansas 80										X	X	X	X	X	X						
Saunders, Kathryn J. -Florida 86										X	X	X	X	X	X						
Vollmer, Timothy -Florida 92										X	X	X	X	X	X						
Green, Leonard -SUNY Stony Brook 74											X	X	X	X	X				X		
Hackenberg, Timothy -Temple 87											X	X	X	X	X				X		
Piazza, Cathleen -Tulane 87											X	X	X	X	X				X		X
Marr, M. Jackson -N. Carolina 66												X	X	X	X				X	X	
Galizio, Mark -Wisconsin Milwaukee 76												X	X	X	X				X	X	X
Lerman, Dorothea C. -Florida 95												X	X	X	X				X	X	X
Stromer, Robert L. -Utah State 81												X	X	X	X				X	X	X
Critchfield, Thomas S. -W. Virginia 89													X	X	X				X	X	X
Davison, Michael -Otago 68																X			X	X	X
Cooper-Brown, Linda -Iowa 91																X	X		X	X	X
Madden, Gregory J. -W. Virginia 95																X	X		X	X	X
O'Reilly, Mark -Illinois UC 92																X	X		X	X	X
Northup, John -Iowa 91																X	X		X	X	X
Palya, William -W. Ontario 78																X	X		X	X	X
Dougher, Michael -Illinois Chicago 80																X	X		X	X	X
McComas, Jennifer J. -Iowa 94																X	X		X	X	X
Miller, Harold L., Jr. -Harvard 75																X	X		X	X	X
Smith, Richard G. -Florida 94																X	X		X	X	X
Silverman, Kenneth -Kansas 84																X	X		X	X	X
Schaal, David W. -Florida 88																X	X		X	X	X
Roane, Henry S. -Louisiana State 99																X	X		X	X	X
MacDonall, James S. -Boston U 76																X	X		X	X	X
Mazur, James E. -Harvard 77																X	X		X	X	X

P: President  
R: Resigned

Fig. 3. SEAB Board of Directors (1988—2007). The vertical columns indicate board members as of September 1 of the year given, which is when terms start.



*mental Analysis of Behavior*, and the Psychonomic Society. We also have participated in the Journal Donation Project, whereby SEAB donates about 20 subscriptions to each of its journals to libraries in Eastern Europe, Russia, and some Asian countries.

A chart of all board members who served between 1957 and 1987 was included in the article celebrating SEAB's 30<sup>th</sup> year (Laties, 1987b). Twenty years later, it seems fitting to add a similar chart of those who were members from 1988 to 2007 (Figure 3).

Near the end of Skinner's essay on the fiftieth anniversary of *The Behavior of Organisms* is this paragraph:

I have not yet mentioned the most important by-product of *The Behavior of Organisms*—the work done by others using the same procedures according to much the same analysis. The procedures have, in fact, been greatly improved, and experiments in laboratories throughout the world have yielded a vast corpus of facts beside which those reported in my book are miniscule. Not only are there many new facts, but, as in other fields of science, the facts hang together. They compose, it seems to me, the most consistent picture of what behavior really is. (Skinner, 1989, p. 133)

By the end of 2007, *JEAB* could boast of having published almost 3,800 articles on 40,839 text pages. A worthy toast to *JEAB*'s next half-century would promise a continuing emphasis upon facts that "hang together," composing "the most consistent picture of what behavior really is."

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